Water to the deprived: From space to ground

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After having put a stop to the manned space flights at the end of current year, NASA (National Aeronautics and Space Administration) has initiated a very challenging mission to reach the last man on the earth. From man on the moon, the journey of the space to the earth and that too to the less privileged people is an amazing transformation of a mission of one of the world's top space organisations.

I happened to attend the first council meeting of LAUNCH Accelerator set up by NASA with focus on meeting the water needs of different deprived regions and social segments. While the interest in grassroots innovations and traditional knowledge for water conservation, storage, treatment, and distribution was one reason for engagement between NASA and Honey Bee Network, the other reason was to blend the NASA's ways of doing things with other institutional approaches to scout and disseminate sustainable technologies.

Mark Sobsey had developed a simple, accessible and affordable test to assess the microbial water quality and safety in developing as well as developed world. Out of 1.6 million people who die every year from diarrhoeal diseases, 90 per cent of these are children under five.

The careless approach that we have for dumping untreated sewage into lakes, rivers and streams contributes to this problem. Therefore, more than 80 per cent of all infectious diseases are caused by faecal contamination. The test developed by Dr Sobsey will cost less than 10 cents may be and will work at room temperature in rural conditions.

MINDS ON THE MARGIN

There are 1,55,000 post offices in India. If we could get water sample to be tested from the villages by using it to paste the stamps and within 15 days or a month, we can send feedback to the people about bacterial contamination in the water quickly. That will increase more awareness about sanitation than any number of other programmes.

Another technology which appealed to me a great deal was developed by Mark Tonkin. He has designed a pipe through which when sea water was made to pass through only water vapours permeates out on the surface and all the salt and other impurities remain inside the pipe at ambient temperature without any extra energy.

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This can be used to grow trees, crops and rear animals in the areas where it was not possible before for want of pure water. It can be blended with traditional virda technology and much more efficient virdas can be developed beside growing trees in the saline deserts along the pipe. One could use the salt collected inside the pipe for various other purposes.

This can revolutionise the food production potential in the coastal as well as saline desert regions. Mark Tonkin of Design Technology and Innovation is willing to travel to India to take it forward so that farmers could grow crops on hitherto uncultivated lands without using any scarce fresh water.

One could develop this technology with the help of CSMCRI and make it available at low cost to farmers by blending it with traditional knowledge. I will talk about more technologies later. It is remarkable that a marriage between tradition and modern technologies is becoming possible around water. Indian Space Research Programme could perhaps take a similar initiative to transform the imagination of the people at grassroots level.

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